IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

SIEMENS INDUSTRY SOFTWARE INC. Plaintiff, v. BELL SEMICONDUCTOR, LLC Defendant.	No. _____ DEMAND FOR JURY TRIAL

COMPLAINT FOR DECLARATORY JUDGMENT

Plaintiff, Siemens Industry Software Inc. ("Siemens") brings this Complaint against Defendant Bell Semiconductor, LLC ("BSLLC" or "Defendant"). In support of this Complaint for Declaratory Judgment, Siemens alleges as follows:

NATURE OF THE ACTION

1. This is an action for declaratory judgment of non-infringement of U.S. Patent Nos. 7,007,259 ("the '259 patent"), 6,436,807 ("the '807 patent"), 7,396,760 ("the '760 patent"), 7,260,803 ("the '803 patent"), 7,231,626 ("the '626 patent"), and 7,149,989 ("the '989 patent") (collectively, the "Asserted Patents") under the Federal Declaratory Judgment Act, 28 U.S.C. §§ 2201 and 2022, and the patent laws of the United States, 35 § 101 et seq., and for other relief the Court deems just and proper. This lawsuit follows a sprawling litigation campaign BSLLC has initiated against Siemens' customers in which BSLLC alleges the customers' use of certain of Siemens' software products infringe the Asserted Patents.

2. Siemens is one of the larger suppliers of Electronic Design Automation ("EDA") software tools in the world. Other large suppliers, Synopsys, Inc. and Cadence Design Systems,

Inc., have filed a separate Declaratory Judgment case, also in this district (Case No. 1:22-cv-01512-CFC). Customers use Siemens EDA design tools to design, develop and test semiconductor chips, which in turn are used in electronic devices that enable communications, computing, healthcare, military systems, transportation, clean energy, and countless other applications. BSLLC alleges that certain tasks that can be performed, at least in part, by Siemens' EDA design tools infringe the Asserted Patents.

3. Siemens' Calibre physical verification software product provides semiconductor designers with a complete integrated circuit verification and design for manufacturing optimization EDA platform, which includes, among other things, metal fill placement, Design Rule Checking, Layout Vs. Schematic comparison, and Electrical Rule Checking features.

4. Siemens' customers are among the world's most innovative companies, who design and create the semiconductor chips that power cellular communications, computers, computer networks, medical devices, automobiles, aerospace and military equipment, satellites, industrial and manufacturing equipment, consumer electronics, household appliances, healthcare systems, and much more. Many of the companies BSLLC has sued for infringement of the Asserted Patents are customers of Siemens, that use Siemens EDA design tools, including: Ambarella, Advanced Micro Devices ("AMD"), Ampere Computing, Analog Devices ("ADI"), ASMedia Technology, Infineon, Kioxia, Lattice Semiconductor, MACOM, Marvell, NXP, Omnivision, ams-OSRAM, Phison Electronics, Inc., Qualcomm, Rockchip Electronics, Silicon Laboratories, and Western Digital (collectively, "Customers").

5. BSLLC is a patent monetization entity and wholly owned subsidiary of Hilco IP Merchant Capital, LLC, the "IP Monetization" arm of Hilco Global, an international financial services company. On information and belief, BSLLC neither makes products nor invests in

research & development. BSLLC's business is litigation. On information and belief, BSLLC is the owner by assignment of the Asserted Patents.

6. As part of its litigation campaign against the semiconductor industry, BSLLC has sued at least eighteen of Siemens' Customers in at least 66 cases pending in at least ten different federal jurisdictions. BSLLC has continually filed new federal lawsuits in a piecemeal fashion, bringing new allegations of infringement of one more of the Asserted Patents against Siemens' Customers over the past eight months.

7. A list of the current district court cases brought by BSLLC against Siemens' Customers involving the Asserted Patents, identified by case name, date filed, the specific Asserted Patents BSLLC asserts in each case, and the presiding judge is as follows (collectively, "District Court Customer Suits"):

	Case (Including party, case number and jurisdiction)	**Filing Date**	**Patents-In-Suit**	**Judge**
1	Bell Semiconductor, LLC v. Advanced Micro Devices, Inc. 1-22-cv-10632 (DMA)	4/27/2022	6436807 7007259	Hon. Angel Kelley
2	Bell Semiconductor, LLC v. Advanced Micro Devices, Inc. 1-22-cv-11383 (DMA)	8/26/2022	7149989 7260803	Hon. Angel Kelley
3	Bell Semiconductor, LLC v. Advanced Micro Devices, Inc. 1-22-cv-11696 (DMA)	10/5/2022	7231626	Hon. Angel Kelley
4	Bell Semiconductor, LLC v. Advanced Micro Devices, Inc. 1-22-cv-11783 (DMA)	10/18/2022	7396760	Hon. Leo T. Sorokin
5	Bell Semiconductor, LLC v. Ambarella, Inc. 3-22-cv-00245 (SDOH)	8/26/2022	7149989 7260803	Hon. Walter H. Rice
6	Bell Semiconductor, LLC v. Ambarella, Inc. 3-22-cv-00273 (SDOH)	9/23/2022	6436807 7007259	Hon. Michael J. Newman

	Case (Including party, case number and jurisdiction)	Filing Date	Patents-In-Suit	Judge
7	Bell Semiconductor, LLC v. Ambarella, Inc. 3-22-cv-00323 (SDOH)	11/11/2022	7231626 7396760	Hon. Thomas M. Rose
8	Bell Semiconductor, LLC v. Ampere Computing, LLC 3-22-cv-01280 (DOR)	8/26/2022	7149989 7260803	Hon. Michael W. Mosman
9	Bell Semiconductor, LLC v. Ampere Computing, LLC 3-22-cv-01435 (DOR)	9/22/2022	6436807 7007259	Hon. Michael W. Mosman
10	Bell Semiconductor, LLC v. ams-OSRAM AG d/b/a ams OSRAM Automotive Lighting Systems USA, Inc. 2-22-cv-12017 (EDMI)	8/26/2022	7149989 7260803	Hon. Gershwin A. Drain
11	Bell Semiconductor, LLC v. ams-OSRAM AG 2-22-cv-11857 (EDMI)	8/11/2022	6436807 7007259	Hon. Gershwin A. Drain
12	Bell Semiconductor, LLC v. ams-OSRAM AG 2-22-cv-12518 (EDMI)	10/20/2022	7231626 7396760	Hon. Linda V. Parker
13	Bell Semiconductor, LLC v. Analog Devices, Inc 1-22-cv-11384 (DMA)	8/26/2022	7149989 7260803	Hon. Nathaniel M. Gorton
14	Bell Semiconductor, LLC v. Analog Devices, Inc. 1-22-cv-10633 (DMA)	4/27/2022	6436807 7007259	Hon. F. Dennis Saylor, IV
15	Bell Semiconductor, LLC v. Analog Devices, Inc. 1-22-cv-11718 (DMA)	10/11/2022	7396760	Hon. F. Dennis Saylor, IV
16	Bell Semiconductor, LLC v. Analog Devices, Inc. 1-22-cv-11901 (DMA)	11/10/2022	7231626	Hon. Judith G. Dein
17	Bell Semiconductor, LLC v. ASMedia Technology, Inc. 1-22-cv-07307 (SDNY)	8/26/2022	7149989 7260803	Hon. Lorna G. Schofield

	Case (Including party, case number and jurisdiction)	Filing Date	Patents-In-Suit	Judge
18	Bell Semiconductor, LLC v. ASMedia Technology, Inc. 1-22-cv-08166 (SDNY)	9/23/2022	6436807 7007259	Hon. Lewis J. Liman
19	Bell Semiconductor, LLC v. ASMedia Technology, Inc. 1-22-cv-09260 (SDNY)	10/28/2022	7231626 7396760	Hon. Valerie E. Caproni
20	Bell Semiconductor, LLC v. Infineon Technologies America Corp. 1-22-cv-11698 (DMA)	10/5/2022	7231626	Hon. M. Page Kelley
21	Bell Semiconductor, LLC v. Infineon Technologies America Corporation 1-22-cv-10634 (DMA)	4/27/2022	6436807 7007259	Hon. Allison D. Burroughs
22	Bell Semiconductor, LLC v. Infineon Technologies America Corporation 1-22-cv-11385 (DMA)	8/26/2022	7149989 7260803	Hon. F. Dennis Saylor, IV
23	Bell Semiconductor, LLC v. Infineon Technologies America Corporation 1-22-cv-11926 (DMA)	11/13/2022	7396760	Hon. Leo T. Sorokin
24	Bell Semiconductor, LLC v. Kioxia America, Inc. 2-22-cv-00726 (EDCA)	4/27/2022	7007259	Hon. Kimberly J. Mueller
25	Bell Semiconductor, LLC v. Kioxia America, Inc. 2-22-cv-01510 (EDCA)	8/26/2022	7149989 7260803	Hon. William B. Shubb
26	Bell Semiconductor, LLC v. Kioxia Corporation et al 2-22-cv-01797 (EDCA)	10/7/2022	7396760	Hon. William B. Shubb
27	Bell Semiconductor, LLC v. Kioxia Corporation et al 2-22-cv-01880 (EDCA)	10/20/2022	7231626 6436807	Hon. Kimberly J. Mueller
28	Bell Semiconductor, LLC v. Lattice Semiconductor Corporation 3-22-cv-01437 (DOR)	9/22/2022	6436807 7007259	Hon. Karin J. Immergut

	Case (Including party, case number and jurisdiction)	Filing Date	Patents-In-Suit	Judge
29	Bell Semiconductor, LLC v. Lattice Semiconductor Corporation 3-22-cv-01542 (DOR)	10/13/2022	7231626	Hon. Stacie F. Beckerman
30	Bell Semiconductor, LLC v. Lattice Semiconductor Corporation 3-22-cv-01543 (DOR)	10/13/2022	7396760	Hon. Marco A. Hernandez
31	Bell Semiconductor, LLC v. Lattice Semiconductor, Inc. 3-22-cv-01282 (DOR)	8/26/2022	7149989 7260803	Hon. Michael W. Mosman
32	Bell Semiconductor, LLC v. MACOM Technology Solutions Inc. 1-22-cv-11290 (DMA)	8/11/2022	7007259	Hon. Denise J. Casper
33	Bell Semiconductor, LLC v. MACOM Technology Solutions Inc. 1-22-cv-11386 (DMA)	8/26/2022	7149989 7260803	Hon. Patti B. Saris
34	Bell Semiconductor, LLC v. MACOM Technology Solutions Inc. 1-22-cv-11719 (DMA)	10/11/2022	7396760	Hon. Nathaniel M. Gorton
35	Bell Semiconductor, LLC v. MACOM Technology Solutions Inc. 1-22-cv-11788 (DMA)	10/19/2022	7231626 6436807	Hon. Leo T. Sorokin
36	Bell Semiconductor, LLC v. Marvell Semiconductor, Inc. 4-22-cv-11721 (DMA)	10/11/2022	7396760	Hon. Denise J. Casper
37	Bell Semiconductor, LLC v. Marvell Technology Group, Ltd. et al 4-22-cv-10635 (DMA)	4/27/2022	6436807 7007259	Hon. Denise J. Casper
38	Bell Semiconductor, LLC v. Marvell Technology Group, Ltd. et al 4-22-cv-11387 (DMA)	8/26/2022	7149989 7260803	Hon. F. Dennis Saylor, IV

	Case (Including party, case number and jurisdiction)	Filing Date	Patents-In-Suit	Judge
39	Bell Semiconductor, LLC v. Marvell Technology Group, Ltd. et al 4-22-cv-11906 (DMA)	11/10/2022	6436807 7231626	Hon. George A. O'Toole, Jr.
40	Bell Semiconductor, LLC v. NXP USA, Inc. 3-22-cv-00594 (SDCA)	4/27/2022	7007259	Hon. Cynthia Bashant
41	Bell Semiconductor, LLC v. NXP USA, Inc. 3-22-cv-01267 (SDCA)	8/26/2022	7149989 7260803	Hon. Linda Lopez
42	Bell Semiconductor, LLC v. NXP USA, Inc. 3-22-cv-01527 (SDCA)	10/6/2022	7231626	Hon. Todd W. Robinson
43	Bell Semiconductor, LLC v. NXP USA, Inc. 3-22-cv-01794 (SDCA)	11/15/2022	7396760	Hon. Jinsook Ohta
44	Bell Semiconductor, LLC v. Omnivision Technologies, Inc. 8-22-cv-01512 (CDCA)	8/11/2022	7007259	Hon. John A. Kronstadt
45	Bell Semiconductor, LLC v. Omnivision Technologies, Inc. 8-22-cv-01591 (CDCA)	8/26/2022	7149989 7260803	Hon. John A. Kronstadt
46	Bell Semiconductor, LLC v. Omnivision Technologies, Inc. 8-22-cv-01840 (CDCA)	10/7/2022	7396760	Hon. Karen E. Scott
47	Bell Semiconductor, LLC v. Omnivision Technologies, Inc. 8-22-cv-01979 (CDCA)	10/27/2022	6436807 7231626	Hon. John A. Kronstadt
48	Bell Semiconductor, LLC v. Phison Electronics, Inc., 1:22-cv-02197 (D. Col.)	08/26/2022	7149989 7260803	Hon. Daniel Domenico
49	Bell Semiconductor, LLC v. Phison Electronics, Inc., 1:22-cv-02485 (D. Col.)	09/23/2022	7007259 6436807	Hon. Daniel Domenico
50	Bell Semiconductor, LLC v. Phison Electronics, Inc., 1:22-cv-02696 (D. Col.)	10/13/2022	7231626	Hon. Daniel Domenico

	Case (Including party, case number and jurisdiction)	Filing Date	Patents-In-Suit	Judge
51	Bell Semiconductor, LLC v. Phison Electronics, Inc., 1:22-cv-02698 (D. Col.)	10/13/2022	7396760	Hon. Daniel Domenico
52	Bell Semiconductor, LLC v. Qualcomm Inc. et al 3-22-cv-00595 (SDCA)	4/27/2022	6436807 7007259	Hon. Cynthia Bashant
53	Bell Semiconductor, LLC v. Qualcomm Incorporated et al 3-22-cv-01266 (SDCA)	8/26/2022	7149989 7260803	Hon. Linda Lopez
54	Bell Semiconductor, LLC v. Qualcomm Technologies, Inc. 3-22-cv-01526 (SDCA)	10/6/2022	7231626	Hon. Todd W. Robinson
55	Bell Semiconductor, LLC v. Qualcomm Technologies, Inc. 3-22-cv-01796 (SDCA)	11/16/2022	7396760	Hon. Cathy Ann Bencivengo
56	Bell Semiconductor, LLC v. Rockchip Electronics Co. Ltd. 4-22-cv-00819 (EDTX)	9/23/2022	6436807 7007259	Hon. Sean D. Jordan
57	Bell Semiconductor, LLC v. Rockchip Electronics Co., Ltd. 4-22-cv-00734 (EDTX)	8/26/2022	7149989 7260803	Hon. Amos L. Mazzant, III
58	Bell Semiconductor, LLC v. Rockchip Electronics Co., Ltd. 4-22-cv-00962 (EDTX)	11/14/2022	7231626 7396760	Hon. Amos L. Mazzant, III
59	Bell Semiconductor, LLC v. Silicon Laboratories, Inc. 1-22-cv-01096 (WDTX) *[1-22-cv-11292 (DMA)]*	8/11/2022	7007259	Hon. Robert Pitman
60	Bell Semiconductor, LLC v. Silicon Laboratories, Inc. 1-22-cv-01094 (WDTX) *[1-22-cv-11389 (DMA)]*	8/26/2022	7149989 7260803	Hon. Robert Pitman
61	Bell Semiconductor, LLC v. Silicon Laboratories, Inc. 1-22-cv-01086 (WDTX) *[1-22-cv-11722 (DMA)]*	10/11/2022	7396760	Hon. Robert Pitman

	Case (Including party, case number and jurisdiction)	Filing Date	Patents-In-Suit	Judge
62	Bell Semiconductor, LLC v. Silicon Laboratories, Inc. 1-22-cv-01122 (WDTX)	11/1/2022	6436807 7231626	Hon. Lee Yeakel
63	Bell Semiconductor, LLC v. Western Digital Technologies, Inc 8-22-cv-01592 (CDCA)	8/26/2022	7149989 7260803	Hon. John A. Kronstadt
64	Bell Semiconductor, LLC v. Western Digital Technologies, Inc 8-22-cv-01823 (CDCA)	10/5/2022	7231626	Hon. Karen E. Scott
65	Bell Semiconductor, LLC v. Western Digital Technologies, Inc. 8-22-cv-01127 (CDCA)	6/7/2022	6436807 7007259	Hon. John A. Kronstadt
66	Bell Semiconductor, LLC v. Western Digital Technologies, Inc. 8-22-cv-02083 (CDCA)	11/15/2022	7396760	Hon. John W. Holcomb

8. BSLLC also filed three Complaints requesting that the International Trade Commission ("ITC") investigate various of Siemens' Customers (and certain of their customers) for unfair trade practice due to purported infringement of a subset of the Asserted Patents, with two of those Complaints being filed in the past two months. A list of the ITC cases brought by BSLLC against Siemens' Customers to-date, identified by case name, date filed, and the specific Asserted Patents BSLLC asserts in each case, is as follows:

Case (Including Case Name, Case Number, And Identification Of Respondents)	Date Case Filed	Patents-In-Suit
Electronic Devices, Semiconductor Devices, and Components Thereof; Inv. No. 337-TA-1340 (Violation) 337-1340 (ITC)	10/6/2022	7231626 7260803

Case (Including Case Name, Case Number, And Identification Of Respondents)	Date Case Filed	Patents-In-Suit
Respondents: NXP, SMC, Micron Technology, nVidia, AMD, Acer, Infineon, Motorola, Western Digital		
Semiconductor Devices Having Layered Dummy Fill, Electronic Devices, and Components Thereof; Inv. No. 337-TA-1342 (Violation) 337-1342 (ITC) Respondents: Analog Devices, Bose, Marvell Semiconductor, Robosense, Kioxia, MaxLinear, Linksys, MACOM, Silicon Laboratories, Denso, Skyworks, OmniVision, Arlo Technologies	10/14/2022	7396760
Electronic Devices and Semiconductor Devices with Timing-Aware Dummy Fill and Components Thereof; Inv. No. 337-TA-1319 (Violation) 337-TA-1319 (ITC)[1] Respondents: NXP, SMC, Micron Technology, nVidia, Advance Micro Devices, Acer, Analog Devices, Bose, Marvell Semiconductor, Robosense, Kioxia, Socionext, Qualcomm, Lenovo, Motorola Mobility	4/29/2022	7007259

9. As the above lists illustrate, BSLLC asserts various different combinations of the Asserted Patents in multiple suits against various Siemens' Customers, resulting in a complicated and sprawling set of cases. Given the volume of cases BSLLC has brought, and the number of semiconductor companies accused of infringement, a multitude of law firms and legal counsel are involved in defending Siemens' Customers. On information and belief, BSLLC's litigation tactics are designed to harass Siemens' Customers in an effort to force them to accept BSLLC's

[1] BSLLC requested termination of the 337-TA-1319 investigation after the Commission affirmed the Administrative Law Judge's scheduling order that set the date for completion of the investigation to be after the '259 patent asserted in that investigation expired.

exorbitant valuation of the Asserted Patents. BSLLC's abusive litigation campaign is burdening not only Siemens' Customers, but also Siemens, as its technology is at the heart of various BSLLC's infringement allegations.

10. In its litigation campaign against the semiconductor industry, BSLLC has identified Siemens as one of the providers of EDA design instrumentalities that purportedly practice the claimed methods of the Asserted Patents, alleging that Siemens' Customers' use of Siemens' EDA design tools to design their semiconductor chip products results in infringement of the Asserted Patents.

11. The Customers have entered into license agreements with Siemens, giving the Customers access to and ability to use Siemens' EDA design tools ("License Agreements"). Many of these License Agreements contain defense and indemnity provisions relating to allegations of infringement of third-party intellectual property, including patents. As a result of the BSLLC litigation campaign against Siemens' Customers, a multitude of Customers have requested indemnity from Siemens.

12. By bringing dozens of simultaneous lawsuits and ITC investigations involving the same Asserted Patents, BSLCC's litigation campaign ensures spiraling litigation costs, untold instances of duplicative written discovery and depositions, and inconsistent findings. The suits are a strain on judicial resources and early, decisive action from the Court would save this Court—and others—from wasted, duplicative efforts. Because various BSLLC's infringement allegations against Siemens' Customers are predicated on the Customers' use of Siemens' EDA design tools, an actual and substantial controversy, ripe for adjudication, exists as to Siemens' non-infringement of the Asserted Patents.

13. Siemens seeks declaratory judgment that the methods and functionality embodied in its EDA design tools do not infringe BSLLC's patents, and as a result, use of those EDA design tools by Siemens and/or its Customers does not infringe any of the Asserted Patents.

14. Siemens seeks declaratory judgment in this action so that the non-infringement of the Asserted Patents by use of Siemens' EDA design tools can be adjudicated in a single forum, as between BSLLC, the alleged assignee of the Asserted Patents, and Siemens, the supplier of EDA design tools identified as the accused instrumentalities. In so doing, Siemens seeks to enable the customer-suit-exception to pause all active litigation by BSLLC against Siemens' Customers for alleged infringement of the Asserted Patents.

15. Siemens also seeks temporary and preliminary injunctive relief to preserve the status quo by preventing BSLLC from continuing its costly and disruptive campaign against Siemens' Customers while this action proceeds.

THE PARTIES

16. Plaintiff Siemens is a Delaware corporation with a principal place of business at 5800 Granite Parkway Suite 600 Plano, Texas 75024.

17. Defendant BSLLC is a Delaware limited liability company with its principal place of business at One West Broad Street, Suite 901, Bethlehem, Pennsylvania 18018.

PATENTS ASSERTED AGAINST SIEMENS' CUSTOMERS

18. The Asserted Patents relate to certain methods and steps for use in the design and verification of semiconductor chips that may be performed with the assistance of a computer. The patents generally fall into three categories: those relating to "dummy metal fill," one relating to Engineering Change Orders (ECOs), and one relating to design validation. As described herein, the BSLLC allegations of infringement regarding the Asserted Patents are directed

towards the methods allegedly performed by Siemens' EDA design tools or by its Customers when using the Siemens' EDA design tools.

A. The Dummy Metal Fill Patents

19. "Dummy metal fill" generally refers to non-functional metal shapes that are inserted into open areas in metal layers of a semiconductor design. Dummy metal fill adds no functionality to a manufactured semiconductor device, but is instead present solely for the purpose of ensuring that one step in the future chip fabrication process, referred to as Chemical Mechanical Polishing or CMP, does not damage the device during manufacture. The CMP process uses an abrasive chemical slurry to polish a silicon wafer, removing excess material and evening out any irregular portions, thereby making the silicon wafer flat or planar.

1. U.S. Patent No. 7,007,259

20. The '259 patent, titled "Method for Providing Clock-Net Aware Dummy Metal Using Dummy Regions," is attached hereto as Exhibit A. United States Patent and Trademark Office ("USPTO") assignment records indicate the '259 patent was originally assigned to LSI Logic Corporation when it issued on February 28, 2006, and was later assigned to a series of companies before being finally assigned to BSLLC.

21. The '259 patent relates to an algorithm for deciding where to put dummy fill objects in data describing the layout of a design that has other objects, prioritizing certain open spaces to be filled later than others based on the characteristics of the nearby objects in the design.

2. U.S. Patent No. 7,260,803

22. The '803 patent, titled "Incremental Dummy Metal Insertions," is attached hereto as Exhibit B. USPTO assignment records indicate the '803 patent was originally assigned to LSI

Corporation when it issued on August 21, 2007, and was later assigned to a series of companies before being finally assigned to BSLLC.

23. The ’803 patent relates to a method for removing from data describing the layout of a design previously inserted dummy metal fill after an incremental change is made in the design data by checking “whether any dummy metal objects intersect with any other objects in the design data” and deleting any intersecting dummy metal objects from the design data.

3. U.S. Patent No. 6,436,807

24. The ’807 patent, titled “Method for Making an Interconnect Layer and a Semiconductor Device Including the Same,” is attached hereto as Exhibit C. USPTO assignment records indicate the ’807 patent was originally assigned to Agere Systems Guardian Corp. when it issued on August 20, 2002, and was later assigned to a series of companies before being finally assigned to BSLLC.

25. The ’807 patent relates to methods for adding dummy metal fill objects to a data describing the layout of a design where the width of the dummy metal fill objects is “based upon a dielectric layer deposition bias.”

4. U.S. Patent No. 7,396,760

26. The ’760 patent, titled “Method and System for Reducing Inter-Layer Capacitance in Integrated Circuits,” is attached hereto as Exhibit D. USPTO assignment records indicate the ’760 patent was originally assigned to LSI Corporation when it issued on July 8, 2008, and was later assigned to a series of companies before being finally assigned to BSLLC.

27. The ’760 patent relates to methods for inserting dummy metal fill objects in data describing the layout of a design in a manner that allegedly minimizes overlap of dummy fill

objects on different layers by rearranging the dummy metal fill objects on adjacent layers in the design.

B. The ECO Patent: U.S. Patent No. 7,231,626

28. The ’626 patent, titled “Method of Implementing an Engineering Change Order in an Integrated Circuit Design by Windows,” is attached hereto as Exhibit E. USPTO assignment records indicate the ’626 patent was originally assigned to LSI Corporation when it issued on June 12, 2007, and was later assigned to a series of companies before being finally assigned to BSLLC.

29. The ’626 patent relates to methods for implementing an engineering change order (ECO) in a semiconductor chip design through selective editing of data describing the layout of a circuit design. The ’626 patent describes creating a “window” around the design changes introduced by the ECO and routing only the parts of the design within that window.

C. The Design Validation Patent: U.S. Patent No. 7,149,989

30. The ’989 patent, titled “Method of Early Physical Design Validation and Identification of Texted Metal Short Circuits in an Integrated Circuit Design,” is attached hereto as Exhibit F. USPTO assignment records indicate the ’989 patent was originally assigned to LSI Logic Corporation when it issued on December 12, 2006, and was later assigned to a series of companies before being finally assigned to BSLLC.

31. The ’989 patent relates to methods for identifying texted metal short circuit data describing an integrated circuit design using a “specific rule deck” that contains a subset of rules generated from a larger design rule deck, where the design rule deck specifies checks to be performed on a chip design.

JURISDICTION AND VENUE

32. The foregoing paragraphs 1-31 are incorporated as if set forth herein in their entirety.

33. This Court has jurisdiction over the subject matter of these claims under the patent laws of United States pursuant to 28 U.S.C. §§ 1331 and 1338(a). Additionally, this Court has subject-matter jurisdiction over Siemens' request for declaratory relief under 28 U.S.C. §§ 2201 and 2202.

34. An actual controversy exists between Siemens, on the one hand, and BSLLC, on the other, as to whether Siemens' EDA design software products and methods used by the Customers BSLLC has sued infringe the Asserted Patents, and likewise, whether Siemens' Customers infringe the Asserted Patents by using Siemens' EDA design software products and methods or by making, using offering for sale, selling and/or importing semiconductor devices designed using Siemens' EDA design tools.

35. This Court has personal jurisdiction over BSLLC because it is incorporated in this District as a Delaware Limited Liability Company. This Court also has personal jurisdiction over BSLLC because of its recent filing of patent lawsuits in this District, including: *Bell Semiconductor, LLC v. Integrated Device Technology, Inc.*, No. 1:19-cv-2155 (D. Del., filed Nov. 18, 2019); and *Bell Semiconductor, LLC v. Advanced Micro Devices, Inc. et al.*, 1:22-cv-1293 (D. Del., filed Sept. 30, 2022). By bringing lawsuits in this District, Defendant has purposefully availed itself of the benefits and protections of the laws of this state and consented to personal jurisdiction in Delaware.

36. Venue is proper in this judicial district pursuant to 28 U.S.C. § 1391 because of Defendant's intentional contact with Delaware. BSLLC is in the business of patent enforcement

and its incorporation in Delaware and assertion of patents in Delaware makes venue proper in this District.

37. Venue is also convenient in this District, as evidenced by the fact that BSLLC has purposely availed itself of the court system in Delaware for the purpose of asserting patents. The alleged infringement of BSLLC's Asserted Patents is best resolved in one district court action, rather than in the over 60 separate lawsuits and multiple ITC actions BSLLC has filed to date involving the Asserted Patents. Siemens' software products are at the core of BSLLC's infringement allegations in each of the cases filed against Siemens' Customers. The issue of Siemens' alleged infringement can be conveniently resolved in Delaware, where Siemens and BSLLC are both incorporated, as are many of Siemens' Customers who BSLLC accuses of infringement.

FACTUAL BACKGROUND

1. BSLLC '259 Patent District Court and ITC Assertions

38. BSLLC began its litigation campaign against Siemens' Customers in April 2022, when BSLLC filed seven lawsuits against Siemens' Customers for their alleged infringement of the '259 patent: *Bell Semiconductor, LLC v. Advanced Micro Devices, Inc*., 1:22-cv-10632 (D. Mass.); *Bell Semiconductor, LLC v. Kioxia America, Inc.*, 2:22-cv-726 (E.D. Cal.); *Bell Semiconductor, LLC v. Analog Devices, Inc.*, 1:22-cv-10633 (D. Mass.); *Bell Semiconductor, LLC v. Marvell Technology Group, Ltd. et al*., 4:22-cv-10635 (D. Mass.); *Bell Semiconductor, LLC v. Infineon Techs. America Corp.* 1:22-cv-10634 (D. Mass.); *Bell Semiconductor, LLC v. Qualcomm Inc. et al*., 3:22-cv-595 (S.D. Cal.); and *Bell Semiconductor, LLC v. NXP USA, Inc.*, 3:22-cv-594 (S.D. Cal.).

39. BSLLC's allegations of infringement of the '259 patent includes claims that are premised on Siemens' Customers' use of Siemens' EDA "design tools to insert dummy metal into a circuit design (the 'Accused Processes') as recited in the '259 patent claims." In particular, in its infringement claim charts, BSLLC defines "Accused Products" as "circuit designs and/or semiconductor products … that are made, produced, and/or processed by a ***design tool***, such as a … Siemens Digital Industries Software (formerly Mentor Graphics) ("Siemens") tool."

40. BSLLC further alleges the "Accused Processes" performed by Siemens' EDA design tools (among others) "infringe and continue to infringe one or more claims of the '259 patent during the pendency of the '259 patent" and Siemens' Customers therefore infringe "directly or indirectly, either literally or under the doctrine of equivalents, by making, selling, or offering to sell in the United States, or importing into the United States products manufactured or otherwise produced using the Accused Processes in violation of one or more claims of the '259 patent." BSLLC's allegations of infringement in part are based wholly or primarily on the Customers' use of Siemens' EDA tools.

41. BSLLC seeks, as relief in each of the Customer lawsuits involving the '259 patent, (1) an award of damages from Customers; (2) an accounting of damages for alleged infringement; (3) enhanced damages; (4) pre- and post- judgment interest; (5) attorneys' fees and costs; and (6) a permanent injunction pursuant to 35 U.S.C. § 283, prohibiting Customers from continuing to engage in the Accused Processes (i.e., use Siemens' EDA design tools).

42. On April 28, 2022, the day after filing its first wave of lawsuits, BSLLC filed a parallel Complaint with the ITC, accusing Siemens' Customers of infringing the '259 patent. A copy of the ITC complaint for that action, *In the Matter of Certain Electronic Devices and*

Semiconductor Devices with Timing-Aware Dummy Fill and Components Thereof, Inv. No. 337-TA-1319 ("1319-Action"), is attached as Exhibit G. The 1319 ITC complaint named several of Siemens' customers as respondents, including: NXP Semiconductors, N.V., NXP B.V., NXP USA, Inc., Advanced Micro Devices, Inc., Infineon Technologies America Corp, Analog Devices, Inc., Marvell Technologies America Corp., Marvell Semiconductor, Inc., Kioxia Corporation, Kioxia America, Inc., and Qualcomm Technologies, Inc. (collectively, "1319-Action Customer Respondents"). The Complaint sought an exclusion order preventing the 1319-Action Customer Respondents from importing into the United States semiconductor devices designed using Siemens' EDA (or other accused) design tools.

43. BSLLC alleged that the 1319-Action Customer Respondents infringed the '259 patent because the 1319-Action Customer Respondents' "circuit designs and/or semiconductor products" "are made, produced, and/or processed by a ***design tool***, such as a "Siemens Digital Industries Software (formerly Mentor Graphics) ("Siemens") tool." Exhibit H, Ex. 60 to 1319-Action Complaint at 1 (emphasis added). BSLLC further alleged that the processes performed by Siemens' EDA design tools infringe by "inserting dummy metal into a circuit design where dummy regions are prioritized such that the dummy regions located adjacent to clock nets are filled with dummy metal last." *Id*. While BSLLC included only citations to another company's product in its claim chart (Cadence), BSLLC alleged that Siemens' EDA design tools "function similarly with respect to the functionality" identified as infringing. *Id*.

44. Based on the 1319-Action Customer Respondents' purported infringing use of Siemens' EDA design tools, BSLLC alleged the 1319-Action Customer Respondents directly infringed claims 1–17 and 35–37 of the '259 patent. Exhibit G at ¶ 3.

45. BSLLC sought as relief in the 1319-Action limited exclusion orders against the individual Respondents, excluding from entry into the United States the products accused of infringing the '259 patent. Exhibit G at ¶ 8. BSLLC further sought cease-and-desist orders, pursuant to 19 U.S.C. § 1337(d), prohibiting each Customer Respondent from, importing, selling, offering for sale (including via the internet or electronic mail), advertising (including via the internet or electronic mail), or transferring products made using Siemens' EDA (or other accused) design tools. Exhibit G at ¶ 9.

46. The Commission instituted the ITC investigation on June 7, 2022. Certain of the 1319-Action Customer Respondents requested entry into the Commission's Early Disposition Program, but the Commission denied early disposition.

47. Shortly thereafter, on July 7, 2022, the ITC Commission adopted a procedural schedule that would not have the ITC investigation completed, and the Presidential review period concluded, until after the expiration of the '259 patent. On information and belief, BSLLC delayed in asserting the '259 patent and misjudged the length of the schedule the ITC was likely to adopt. Consequently, BSLLC requested to withdraw its ITC complaint and terminate the 1319-Action after it lost its challenge to the procedural schedule. BSLLC would instead continue to pursue its infringement allegations in the district courts. The Commission granted BSLLC's request and the 1319-Action was terminated on August 29, 2022.

48. Before the Commission had even officially terminated the 1319-Action, however, BSLLC resumed filing lawsuits against more of Siemens' Customers. BSLLC further asserted the '259 patent in another eleven district court cases between June and October, 2022: *Bell Semi., LLC v. Western Digital Tech., Inc.*, 8:22-cv-1127 (C.D. Cal.); *Bell Semiconductor, LLC v. MACOM Tech. Solutions Inc.*, 1:22-cv-11290 (D. Mass.); *Bell Semiconductor, LLC v. ams-*

OSRAM AG, 2:22-cv-11857 (EDMI); *Bell Semiconductor, LLC v. Omnivision Techs., Inc*., 8:22-cv-1512 (C.D. Cal.); *Bell Semiconductor, LLC v. Ampere Computing, LLC*, 3:22-cv-1435 (D. Or.); *Bell Semiconductor, LLC v. Lattice Semiconductor Corp.*, 3:22-cv-1437 (D. Or.); *Bell Semiconductor, LLC v. Phison Electronics, Inc.*, 1:22-cv-02485 (D. Col.); *Bell Semiconductor, LLC v. Rockchip Elecs. Co. Ltd.*, 4:22-cv-819 (E.D. Tex.); *Bell Semiconductor, LLC v. Ambarella, Inc.*, 3:22-cv-273 (S.D. Ohio); *Bell Semiconductor, LLC v. ASMedia Tech., Inc*., 1:22-cv-8166 (S.D.N.Y.); and *Bell Semiconductor, LLC v. Silicon Laboratories, Inc*., 1:22-cv-01096 (WDTX).

49. All eighteen of the district court suits asserting the ’259 patent against Siemens’ Customers remain pending.

2. BSLLC’S ’807 Patent District Court Assertions

50. BSLCC asserts infringement of the ’807 patent in its district court cases against all eighteen of Siemens’ Customers. From August to November 2022, BSLLC filed Amended Complaints or new lawsuits asserting infringement of the ’807 patent alone, or together with the ’259 or ’626 patent against Siemens’ Customers.

51. In each of these lawsuits, BSLLC alleges Siemens’ Customers “directly infringe pursuant to 35 U.S.C. § 271(a) one or more claims of the ’807 patent by using the patented methodology to design one or more semiconductor devices ... in the United States.” BSLLC alleges at least in part that the Customers used Siemens’ EDA “design tools ... to make a layout for an interconnect layer of a semiconductor device (the “Accused Processes”) as recited in the ’807 patent claims.” In particular, in its infringement claim charts, BSLLC defines “Accused Products” as “circuit designs and/or semiconductor products … that are made, produced, and/or

processed by a ***design tool***, such as a … Siemens Digital Industries Software (formerly Mentor Graphics) ("Siemens") tool."

52. BSLLC further alleges that in using Siemens' EDA design tools, Siemens' Customers "infringe and continue to infringe one or more claims of the '807 patent during the pendency of the '807 patent." BSLLC alleges that Siemens' Customers "directly or indirectly, either literally or under the doctrine of equivalents, by making, selling, or offering to sell in the United States, or importing into the United States products manufactured or otherwise produced using the Accused Processes [of Siemens' EDA design tools] in violation of one or more claims of the '807 patent."

53. BSLLC seeks, as relief in each of the lawsuits involving the '807 patent, (1) an award of damages from Customers; (2) an accounting of damages for alleged infringement; (3) enhanced damages; (4) pre- and post- judgment interest; (5) attorneys' fees and costs; and (6) a permanent injunction pursuant to 35 U.S.C. § 283, prohibiting Siemens' Customers from continuing to engage in the Accused Processes (i.e., use Siemens' EDA design tools).

54. All eighteen of the district court suits asserting infringement of the '807 patent against Siemens EDA's Customers remain pending.

3. BSLLC'S '989 and '803 Patent District Court Assertions

55. In August 2022, BSLLC commenced another phase of its litigation campaign against Siemens' Customers. BSLLC filed eighteen lawsuits, across ten district courts, asserting infringement of both the '989 and '803 patents. *Bell Semiconductor, LLC v. Infineon Technologies America Corporation* (1:22-cv-11385) (D. Mass.); *Bell Semiconductor, LLC v. Analog Devices, Inc*. (1:22-cv-11384) (D. Mass.); *Bell Semiconductor, LLC v. Advanced Micro Devices, Inc.* (1:22-cv-11383) (D. Mass.); *Bell Semiconductor, LLC v. Marvell Technology*

Group, Ltd. et al (4:22-cv-11387) (D. Mass.); *Bell Semiconductor, LLC v. ASMedia Technology, Inc.* (1:22-cv-7307) (S.D.N.Y.); *Bell Semiconductor, LLC v. Ambarella, Inc*. (3:22-cv-245) (SDOH); *Bell Semiconductor, LLC v. ams-OSRAM AG d/b/a amsOSRAM Automotive Lighting Systems USA, Inc.* (2:22-cv-12017) (E.D. Mich.); *Bell Semiconductor, LLC v. Kioxia America, Inc*. (2:22-cv-1510) (EDCA); *Bell Semiconductor, LLC v. Lattice Semiconductor, Inc*. (3:22-cv-1282) (DOR); *Bell Semiconductor, LLC v. Ampere Computing,* LLC (3:22-cv-1280) (DOR); *Bell Semiconductor, LLC v. Omnivision Technologies, Inc.* (8:22-cv-1591) (CDCA); *Bell Semiconductor, LLC v. Phison Electronics, Inc.*, 1:22-cv-02197 (D. Col.); *Bell Semiconductor, LLC v. Western Digital Technologies, Inc.* (8:22-cv-1592) (CDCA); *Bell Semiconductor, LLC v. Rockchip Electronics Co., Ltd.* (4:22-cv-734) (EDTX); *Bell Semiconductor, LLC v. NXP USA, Inc.* (3:22-cv-1267) (SDCA); *Bell Semiconductor, LLC v. Qualcomm Incorporated et al* (3:22-cv-1266) (SDCA); *Bell Semiconductor, LLC v. MACOM Technology Solutions Inc.* (1:22-cv-11386) (D. Mass.); and *Bell Semiconductor, LLC v. Silicon Laboratories, Inc*., 1:22-cv-01094 (WDTX).

56. Rather than seeking to amend its earlier-filed Complaints to add infringement allegations regarding the ’803 and ’989 patents, BSLLC filed separate, parallel lawsuits, forcing each of Siemens’ Customers to defend multiple district court cases simultaneously, often before different judges, as BSLLC made no attempt to inform the courts of its previously-filed related cases.

57. In each of these lawsuits, BSLLC alleges at least in part that Siemens EDA’s Customers “directly infringe pursuant to 35 U.S.C. § 271(a)” one or more claims of the ’989 patent and the ’803 patent “by using the patented methodology to design one or more semiconductor devices ... in the United States.”

58. As to the '989 patent, BSLLC alleges the Customers used Siemens' EDA "design tools ... to validate its circuit designs (the "Accused Processes") as recited in the '989 patent claims." BSLLC alleges that when Customers use Siemens' EDA products, Siemens' EDA design tools perform the "Accused Processes" as they perform every step recited in the claims. In particular, in its infringement claim charts, BSLLC alleges that "[t]he Accused Products are made, produced, or processed by ***design tools*** from … Siemens to insert dummy metal in design data for an integrated circuit, which includes dummy metal objects inserted by a dummy fill tool."

59. BSLLC specifically alleges the use of Siemens' EDA design tools "infringe and continue to infringe one or more claims of the '989 patent during the pendency of the '989 patent" and Siemens' Customers "directly or indirectly, either literally or under the doctrine of equivalents, by making, selling, or offering to sell in the United States, or importing into the United States products manufactured or otherwise produced using the Accused Processes [performed by Siemens' EDA design tools] in violation of one or more claims of the '989 patent."

60. As to the '803 patent, BSLLC alleges Customers used the "Accused Processes" in Siemens' EDA design tools to practice every step of the claims in the '803 patent. BSLLC alleges that when Customers use Siemens' EDA products, Siemens' EDA design tools perform the "Accused Processes" as they perform every step recited in the claims. In particular, in its infringement claim charts, BSLLC alleges that "[t]he Accused Products are made, produced, or processed by ***design tools*** from … Siemens."

61. BSLLC specifically alleges the "Accused Processes" in Siemens' EDA design tools "infringe and continue to infringe one or more claims of the '803 patent during the

pendency of the '803 patent" and that Siemens' Customers "directly or indirectly, either literally or under the doctrine of equivalents, by making, selling, or offering to sell in the United States, or importing into the United States products manufactured or otherwise produced using the Accused Processes [of Siemens' EDA design tools] in violation of one or more claims of the '803 patent."

62. BSLLC seeks, as relief in each of the lawsuits involving the '989 patent '803 patent, (1) an award of damages from Customers; (2) an accounting of damages for alleged infringement; (3) enhanced damages; (4) pre- and post- judgment interest; (5) attorneys' fees and costs; and (6) a permanent injunction pursuant to 35 U.S.C. § 283, prohibiting Customers from continuing to engage in the Accused Processes (i.e., use of Siemens' EDA design tools).

63. All eighteen of the district court suits asserting infringement of the '989 patent and '803 patent against Siemens EDA's Customers remain pending.

4. BSLLC'S '626 Patent District Court Assertions

64. BSLLC continued to expand its Litigation Campaign against Siemens' Customers with yet another phase of lawsuits. From October to November 2022, BSLLC asserted infringement of the '626 patent in seventeen district court cases against Siemens' Customers, many of which were already saddled with multiple litigations involving one or more of the '259 patent, the '807 patent, the '989 patent and/or the '803 patent. The district court cases alleging infringement of the '626 patent by Siemens' Customers include: *Bell Semiconductor LLC v. Advanced Micro Devices, Inc.*, 1:22-cv-11696) (D. Mass.); *Bell Semiconductor LLC v. Infineon Technologies America Corp*., 1:22-cv-11698 (D. Mass.); *Bell Semiconductor LLC v. Western Digital Technologies, Inc*., 8:22-cv-1823 (C.D. Cal.); *Bell Semiconductor LLC v. Qualcomm Technologies, Inc.*, 3:22-cv-1526 (S.D. Cal.); *Bell Semiconductor LLC v. NXP USA, Inc.*, 3:22-

cv-1527 (S.D. Cal.); *Bell Semiconductor LLC v. Lattice Semiconductor Corporation*, 3:22-cv-1542 (D. Or); *Bell Semiconductor LLC v. MACOM Technology Solutions Inc*., 1:22-cv-11788 (D. Mass.); *Bell Semiconductor LLC v. ams-ORAM AG d/b/a ams OSRAM Automotive Lighting Systems USA, Inc*., 2:22-cv-12518 (E.D. Mich.); *Bell Semiconductor LLC v. Kioxia America, Inc*., 2:22-cv-1880 (E.D. Cal.); *Bell Semiconductor LLC v. Omnivision Technologies, Inc*., 8:22-cv-1979 (C.D. Cal.); *Bell Semiconductor LLC v. ASMedia Technology, Inc.*, 1:22-cv-9260 (S.D.N.Y.); *Bell Semiconductor LLC v. Silicon Laboratories, Inc*., 1:22-cv-01122 (W.D. Tex.); *Bell Semiconductor, LLC v. Analog Devices, Inc*. 1-22-cv-11901 (D. Mass); *Bell Semiconductor, LLC v. Marvell Technology Group, Ltd. et al*, 1-22-cv-11906 (D. Mass); *Bell Semiconductor, LLC v. Ambarella, Inc*., 3:22-cv-0323 (S.D. Ohio); *Bell Semiconductor, LLC v. Phison Electronics, Inc.*, 1:22-cv-02696 (D. Col.); and *Bell Semiconductor, LLC v. Rockchip Electronics Co., Ltd*., 4:22-cv-0962 (E.D. Tex.). Some of these lawsuits involve the '626 patent alone, while others involve both the '626 patent and the '807 patent, and yet others involve both the '626 patent and the '760 patent.

65. In each of these lawsuits, BSLLC alleges Siemens EDA's Customers "directly infringe pursuant to 35 U.S.C. § 271(a)" one or more claims of the '626 patent "by using the patented methodology to design one or more semiconductor devices ... in the United States." BSLLC alleges Customers used Siemens' EDA "design tools ... to perform incremental routing in implementing an ECO (the "Accused Processes") as recited in the '626 patent claims." In particular, in its infringement claim charts, BSLLC defines "Accused Products" as "devices … that are or include semiconductor integrated circuit devices made using a design tool, that are made, produced, and/or processed by a ***design tool***, such as a … Siemens Digital Industries Software (formerly Mentor Graphics) ("Siemens") tool." While BSLLC included only citations

to another company's product in its claim chart (Cadence), BSLLC alleged that Siemens' EDA design tools "function similarly with respect to the functionality" identified as infringing.

66. BSLLC further alleges Customers' use of the "Accused Processes" in Siemens' EDA design tools causes them to "infringe and continue to infringe one or more claims of the '626 patent during the pendency of the '626 patent." BSLLC alleges Siemens' Customers "directly or indirectly, either literally or under the doctrine of equivalents, by making, selling, or offering to sell in the United States, or importing into the United States products manufactured or otherwise produced using the Accused Processes [of Siemens' EDA design tools] in violation of one or more claims of the '626 patent."

67. BSLLC seeks relief in each of the lawsuits involving the '626 patent including, but not limited to, (1) an award of damages from Customers; (2) an accounting of damages for alleged infringement; (3) enhanced damages; (4) pre- and post- judgment interest; (5) attorneys' fees and costs; and (6) a permanent injunction pursuant to 35 U.S.C. § 283, prohibiting Customers from continuing to engage in the Accused Processes (i.e., use of Siemens' EDA design tools).

6. BSLLC'S '626 and '803 Patent ITC Assertion

68. On October 6, 2022, BSLLC burdened Siemens' Customers with yet another litigation proceeding by filing a Complaint with the ITC accusing Siemens' Customers of infringing the '626 patent and the '803 patent. *In the Matter of Matter of Certain Electronic Devices and Semiconductor Devices, And Components Thereof*, Inv. No. 337-TA-1340 ("1340-Action') attached as Exhibit I. The Complaint included a number of Siemens' Customers as Respondents, including NXP, AMD, Infineon, Western Digital and Qualcomm[2] (collectively,

[2] The ITC did not institute an investigation against Qualcomm.

"1340-Action Customer Respondents"). The Complaint seeks an exclusion order preventing the named customer respondents from importing into the United States semiconductor devices designed using Siemens' EDA (or other accused) design tools.

69. As to the '803 patent, BSLLC alleges infringement by Customer "semiconductor integrated circuit devices" that are "made, produced, or processed by ***design tools*** from … Siemens to insert dummy metal in design data for an integrated circuit, which includes dummy metal objects inserted by a dummy fill tool." Exhibit J, Ex. 34B to 1319-Action Complaint at 1, 2 (emphasis added). Based on the Customers' purported infringing use of Siemens' EDA design tools, BSLLC alleges the Customer Respondents directly infringed claims 1-6 and 9-11 of the '803 patent.

70. BSLLC seeks as relief in the 1340-Action limited exclusion orders against the individual Respondents excluding from entry into the United States the products accused of infringing the '626 patent and/or the '803 patent. BSLLC further seeks cease-and-desist orders, pursuant to 19 U.S.C. § 1337(d), prohibiting each customer respondent from, importing, selling, offering for sale (including via the internet or electronic mail), advertising (including via the internet or electronic mail), or transferring products made using Siemens' EDA design tools.

71. The Commission instituted the investigation in the 1340-Action on November 8, 2022. Certain of the 1340-Action Customer Respondents requested entry into the Commission's Early Disposition Program, but the Commission denied early disposition.

72. On information and belief, BSLLC applied for, and the ITC issued subpoenas, to Siemens in connection with the 1340-Action, seeking discovery in the form of documents and deposition testimony regarding Siemens' EDA design tools.

73. All of the district court suits and the 1340-Action asserting infringement of the '626 patent and '803 patent against Siemens' Customers remain pending and none have been stayed.

5. BSLLC '760 Patent District Court and ITC Assertions

74. In October through November 2022, BSLLC launched yet another wave of litigation, this time alleging Siemens EDA's Customers infringe the '760 patent. BSLLC filed seventeen district court cases naming Siemens' Customers as defendants. The suits involving the '760 patent include: *Bell Semiconductor LLC v. ASMedia Technology, Inc*., 1:22-cv-9260 (S.D.N.Y.); *Bell Semiconductor LLC v. ams-ORAM AG d/b/a ams OSRAM Automotive Lighting Systems USA, Inc*., 2:22-cv-12518 (E.D. Mich.); *Bell Semiconductor LLC v. Advanced Micro Devices, Inc*., 1:22-cv-11783 (D. Mass.); *Bell Semiconductor LLC v. Lattice Semiconductor Corporation*, 3:22-cv-1543 (D. Or.); *Bell Semiconductor LLC v. Analog Devices, Inc*., 1:22-cv-11718 (D. Mass.); *Bell Semiconductor LLC v. Marvell Semiconductor, Inc.*, 4:22-cv-11721 (D. Mass.); *Bell Semiconductor LLC v. MACOM Technology Solutions Inc*., 1:22-cv-11719 (D. Mass.); *Bell Semiconductor LLC v. Omnivision Technologies, Inc.* (8:22-cv-1840) (C.D. Cal.); *Bell Semiconductor, LLC v. Phison Electronics, Inc.*, 1:22-cv-02698 (D. Col.); *Bell Semiconductor LLC v. Kioxia Corporation et al*, 2:22-cv-1797 (E.D. Cal.); *Bell Semiconductor, LLC v. Ambarella, Inc*., 3:22- cv-00323 (S.D. Ohio); *Bell Semiconductor, LLC v. Infineon Technologies America Corporation*, 1:22-cv-11926 (D. Mass.); *Bell Semiconductor, LLC v. Rockchip Electronics Co., Ltd*., 4:22-cv-00962 (E.D. Tex.); *Bell Semiconductor, LLC v. NXP USA, Inc*., 3:22-cv-01794 (S.D. Cal.); *Bell Semiconductor LLC v. Western Digital Technologies, Inc*., 8:22-cv-02083 (C.D. Cal.); *Bell Semiconductor LLC v. Silicon Laboratories, Inc*., 1-22-cv-01086 (WDTX); and *Bell Semiconductor, LLC v. Qualcomm Technologies, Inc*., 3:22-cv-01796 (S.D. Cal.). In twelve of the sixteen cases, BSLCC asserted only the '760 patent, and in the other 4 suits, BSLLC asserted the '760 patent along with the '626 patent.

75. In each of the sixteen district court cases, BSLLC alleges in part that Siemens EDA's Customers "directly infringe pursuant to 35 U.S.C. § 271(a)" one or more claims of the '760 patent "by using the patented methodology to design one or more semiconductor devices ... in the United States." BSLLC alleges Siemens' Customers used Siemens' EDA "design tools ... to rearrange dummy fill to minimize its overlap in successive layers (the "Accused Processes") as recited in the '760 patent claims." In particular, in its infringement claim charts, BSLLC defines "Accused Products" as "circuit designs and/or semiconductor products … that are made produced or processed by a ***design tool***, such as a … Siemens Digital Industries Software (formerly Mentor Graphics) ("Siemens") tool." While BSLLC included only citations to another company's product in its claim chart (Cadence), BSLLC alleged that Siemens' EDA design tools "function similarly with respect to the functionality" identified as infringing.

76. BSLLC further alleges the "Accused Processes" performed by Siemens' EDA design tools "infringe and continue to infringe one or more claims of the '760 patent during the pendency of the '760 patent." BSLLC also alleges Siemens' Customers "directly or indirectly, either literally or under the doctrine of equivalents, by making, selling, or offering to sell in the United States, or importing into the United States products manufactured or otherwise produced using the Accused Processes [of Siemens' EDA design tools] in violation of one or more claims of the '760 patent."

77. As relief in each of the lawsuits involving the '760 patent, BSLLC seeks at least: (1) an award of damages from Customers; (2) an accounting of damages for alleged infringement; (3) enhanced damages; (4) pre- and post- judgment interest; (5) attorneys' fees and costs; and (6) a permanent injunction pursuant to 35 U.S.C. § 283, prohibiting Customers from continuing to engage in the Accused Processes (i.e., use Siemens' EDA design tools).

78. All of the district court suits involving the '760 patent against Siemens' Customers remain pending and none have been stayed.

79. In addition to the District Court cases above, BSLLC also filed a Complaint with the ITC, accusing several of Siemens' Customers of infringing the '760 patent on October 14, 2022. *In the Matter of Certain Electronic Devices and Semiconductor Devices, and Components Thereof,* Inv. 337-TA-1342 ("1342-Action'), attached as Exhibit K. The Complaint included as Respondents several of Siemens' Customers, including: Analog Devices, Inc., Kioxia America, Inc., Kioxia Corporation, MACOM Technology Solutions Inc., Marvell Technology Group, Ltd., and Silicon Laboratories, Inc. (collectively, "1342-Action Customer Respondents"). The complaint seeks an exclusion order preventing the importation into the United States of semiconductor devices designed using Siemens' EDA design tools by the customer respondents.

80. BSLLC alleges Siemens' Customers' "circuit designs and/or semiconductor products" that are "made, produced, and/or processed by a ***design tool***, such as a … Siemens Digital Industries Software (formerly Mentor Graphics) ("Siemens") tool" infringe the '760 patent. Exhibit. L, Ex. 42 to 1342-Action Complaint at 1 (emphasis added). BSLLC further alleges Customers' use of Siemens' EDA design tools infringes the '760 patent "by rearranging dummy fill features to minimize their overlap when viewed across adjacent layers." *Id*. In particular, in its infringement claim charts, BSLLC defines "Accused Products" as "circuit designs and/or semiconductor products … that are made, produced, and/or processed by a design tool, such as a … Siemens Digital Industries Software (formerly Mentor Graphics) ("Siemens") tool," and alleges Siemens' EDA design tools practice every step of the '807 patent claims. While BSLLC included only citations to another company's product in its claim chart (Cadence),

BSLLC alleged that Siemens' EDA design tools "function similarly with respect to the functionality" identified as infringing. *Id*.

81. Based at least in part on the purported infringing use of Siemens' EDA design tools, BSLLC alleges the customer respondents directly infringed claims 1–6 and 11–13 of the '760 patent. Exhibit K at ¶ 5.

82. BSLLC seeks as relief in the 1342-Action a limited exclusion order against the individual Respondents, excluding from entry into the United States the products accused of infringing the '760 patent. Exhibit K at ¶ 10. BSLLC further seeks cease-and-desist orders, pursuant to 19 U.S.C. § 1337(d), prohibiting each customer respondent from importing, selling, offering for sale (including via the internet or electronic mail), advertising (including via the internet or electronic mail), or transferring products made using Siemens' EDA (or other accused) design tools. Exhibit K at ¶ 11.

83. The Commission instituted the investigation in the 1342-Action on November 23, 2022. Certain of the 1342-Action Customer Respondents requested entry into the Commission's Early Disposition Program, but the Commission denied early disposition. All of the district court suits and the 1342-Action asserting infringement of the '706 patent against Siemens' Customers remain pending and none have been stayed.

84. Attached to this Complaint as Exhibits M and N, respectively, are tables of all the pending District Court cases and ITC investigations that are part of BSLLC's litigation campaign against Siemens' Customers for their use of Siemens' EDA design tools.

6. Siemens Has a License to Practice the '807 Patent

85. The application that led to the '807 patent was filed on January 18, 2000. Exhibit C. The '807 patent was initially assigned to Lucent Technologies Inc. from the named inventors

on March 2, 2000, then to Agere Systems Guardian Corp. on January 31, 2001, before assignment to Avago Technology General IP on August 4, 2014, and finally assigned to BSLLC on December 8, 2017. *See* Exhibit O, '807 Patent Assignment History; Exhibit P at 4 (January 30, 2001 Assignment to Agere Systems Guardian Corp.).

86. Siemens Aktiengesellschaft ("Siemens AG") entered into a patent license agreement with Lucent Technologies GRL Corp. on January 31, 2001, wherein Siemens AG and any sublicensed subsidiaries were granted a license to practice all patents and patent applications filed before December 31, 2005 and owned or controlled by Lucent Technologies GRL Corp. or any related company during the period January 31, 2001 through December 31, 2005, through the entire term of any such patent.

87. Agere Systems Inc. was a related company under the agreement so long as at least fifty percent (50%) of the shares or other securities of such company entitled to vote for election of directors (or other managing authority) are controlled by Lucent Technologies Inc., either directly or indirectly.

88. As of April 30, 2002, Lucent Technologies Inc. owned 100% of Agere Systems Inc.'s outstanding Class B common stock and 37 million shares of its outstanding Class A common stock, which represented approximately 58% of the total outstanding common stock and approximately 84% of the combined voting power of both classes of Agere System Inc.'s common stock with respect to the election and removal of directors. Exhibit Q, Agere Systems Inc. Form 424A Prospectus, at 25.[3] When the '807 patent issued on August 20, 2002, it listed Agere Systems Guardian Corp. as its assignee on the face of the patent. Exhibit C.

[3] Available at: https://sec.report/Document/0000950123-02-006119/

FIRST CLAIM FOR RELIEF

(Declaratory Judgment that Siemens Does Not Infringe the '259 Patent)

89. Siemens repeats and re-alleges each and every allegation contained in paragraphs 1–88 of this Complaint as if fully set forth herein.

90. In view of the facts and allegations set forth above, there is an actual, justiciable, substantial, and immediate controversy within the meaning of 28 U.S.C. § 2201 between Siemens and BSLLC regarding whether Siemens and the methods and functionalities performed by Siemens' EDA design tool software products infringe any claim of the '259 patent and/or contribute to or induce Siemens' Customers to infringe.

91. Siemens does not infringe the '259 patent because Siemens' EDA design software products do not perform the methods claimed in claims 1–17 and 35–37, or make, sell, use or import products that contain the program instructions claimed in claims 18–34. For example, Siemens' EDA design tools, when used by Customers, at least do not "prioritiz[e] the dummy regions such that the dummy regions located adjacent to clock nets are filled with dummy metal last, thereby minimizing any timing impact on the clock nets" as required by claims 1-34, or "insert[] dummy metal into the sorted dummy regions such that the dummy regions located adjacent to increasingly wider clock nets are filled last, thereby minimizing any timing impact on the clock nets" as required by claims 35-37.

92. Siemens is therefore entitled to the declaratory judgment that its EDA design tool software products, and the uses thereof, do not infringe any claims of '259 patent, directly or indirectly, literally or by equivalence.

SECOND CLAIM FOR RELIEF

(Declaratory Judgment that Siemens Does Not Infringe the '626 Patent)

93. Siemens repeats and re-alleges each and every allegation contained in paragraphs 1-92 of this Complaint as if fully set forth herein.

94. In view of the facts and allegations set forth above, there is an actual, justiciable, substantial, and immediate controversy within the meaning of 28 U.S.C. § 2201 between Siemens and BSLLC regarding whether Siemens and the methods and functionalities performed by Siemens' EDA design tool software products infringe any claim of the '626 patent and/or contribute to or induce Siemens' Customers to infringe.

95. Siemens does not infringe the '626 patent because Siemens' EDA design tool software products, do not perform the methods claimed in claims 1–4, nor does Siemens make, sell, use or import products that contain the program instructions claimed in claims 5–8. For example, Siemens' EDA design tools, when used by Customers, at least do not "create[e] at least one window … wherein the window is bounded by coordinates that define an area that is less than an entire area of the integrated circuit design," "perform[] an incremental routing of the integrated circuit design only for each net in the integrated circuit design that is enclosed by the window," or "replac[e] an area in a copy of the integrated circuit design that is bounded by the coordinates of the window" as required by claims 1-8.

96. Siemens is therefore entitled to the declaratory judgment that its EDA design tool software products, and the uses thereof, do not infringe any claims of '626 patent, directly or indirectly, literally or by equivalence.

THIRD CLAIM FOR RELIEF

(Declaratory Judgment that Siemens Does Not Infringe the '760 Patent)

97. Siemens repeats and re-alleges each and every allegation contained in paragraphs 1-96 of this Complaint as if fully set forth herein.

98. In view of the facts and allegations set forth above, there is an actual, justiciable, substantial, and immediate controversy within the meaning of 28 U.S.C. § 2201 between Siemens and BSLLC regarding whether Siemens and the methods performed by Siemens' EDA design tool software products infringe any claim of the '760 patent and/or contribute to or induce Siemens' Customers to infringe.

99. Siemens does not infringe the '760 patent because Siemens' EDA design tool software products do not perform the methods claimed in claims 1–19. For example, Siemens' EDA design tools, when used by Customers, at least do not "determin[e] an overlap between the first dummy fill space and the second dummy fill space; and minimize[e] the overlap by re-arranging a plurality of first dummy fill features and a plurality of second dummy fill features" as required by claims 1-13, or "determin[e] whether there is an overlap between the plurality of dummy fill features on the first layer and the plurality of dummy fill features on the second layer; and minimize[e] the overlap by re-arranging the plurality of dummy fill features on the first layer and the second layer, wherein a total inter-layer capacitance is minimized" as required by claims 14-19.

100. Siemens is therefore entitled to the declaratory judgment that its EDA design tool software products, and the uses thereof, do not infringe any claims of '760 patent, directly or indirectly, literally or by equivalence.

FOURTH CLAIM FOR RELIEF

(Declaratory Judgment that Siemens Does Not Infringe the '803 Patent)

101. Siemens repeats and re-alleges each and every allegation contained in paragraphs 1-100 of this Complaint as if fully set forth herein.

102. In view of the facts and allegations set forth above, there is an actual, justiciable, substantial, and immediate controversy within the meaning of 28 U.S.C. § 2201 between Siemens and BSLLC regarding whether Siemens and the methods and functionalities performed by Siemens' EDA design tool software products infringe any claim of the '803 patent and/or contribute to or induce Siemens' Customers to infringe.

103. Siemens does not infringe the '803 patent because Siemens' EDA design tool software products do not perform the methods claimed in claims 1–11, nor does Siemens make, sell, use or import products that contain the program instructions claimed in claims 12–22. For example, Siemens' EDA design tools, when used by Customers, at least do not "after a portion of the design data is changed, perform[] a check to determine whether any dummy metal objects intersect with any other objects in the design data; and … delet[e] the intersecting dummy metal objects from the design data, thereby avoiding having to rerun the dummy fill tool" as required by claims 1-22.

104. Siemens is therefore entitled to the declaratory judgment that its EDA design tool software products, and the uses thereof, do not infringe any claims of '803 patent, directly or indirectly, literally or by equivalence.

FIFTH CLAIM FOR RELIEF

(Declaratory Judgment that Siemens Does Not Infringe the '807 Patent)

105. Siemens repeats and re-alleges each and every allegation contained in paragraphs 1-104 of this Complaint as if fully set forth herein.

106. In view of the facts and allegations set forth above, there is an actual, justiciable, substantial, and immediate controversy within the meaning of 28 U.S.C. § 2201 between Siemens and BSLLC regarding whether Siemens and the methods and functionalities performed

by Siemens' EDA design tool software products infringe any claim of the '807 patent and/or contribute to or induce Siemens' Customers to infringe.

107. Siemens does not infringe the '807 patent because Siemens' EDA design tool software products do not perform the methods claimed in claims 1–18. For example, Siemens' EDA design tools when used by Customers at least do not "add[] dummy fill features … [where] the adding compris[es] defining a minimum dummy fill lateral dimension based upon a dielectric layer deposition bias for a dielectric layer to be deposited over the interconnect layer" as required by claims 1-18.

108. Siemens is therefore entitled to the declaratory judgment that its EDA design tool software products, and the uses thereof, do not infringe any claims of '807 patent, directly or indirectly, literally or by equivalence.

SIXTH CLAIM FOR RELIEF

(Declaratory Judgment that Siemens Does Not Infringe the '989 Patent)

109. Siemens repeats and re-alleges each and every allegation contained in paragraphs 1–108 of this Complaint as if fully set forth herein.

110. In view of the facts and allegations set forth above, there is an actual, justiciable, substantial, and immediate controversy within the meaning of 28 U.S.C. § 2201 between Siemens and BSLLC regarding whether Siemens and the methods and functionalities performed by Siemens' EDA design tool software products infringe any claim of the '989 patent and/or contribute to or induce Siemens' Customers to infringe.

111. Siemens does not infringe the '989 patent because Siemens' EDA design tool software products do not perform the methods claimed in claims 1–6, nor does Siemens make, sell, use or import products that contain the program instructions claimed in claims 7–12. For

example, Siemens' EDA design tools, when used by Customers, at least do not "generat[e] a specific rule deck from the physical design rule deck wherein the specific rule deck includes only physical design rules that are specific to texted metal short circuits between different signal sources in addition to power and ground in the integrated circuit design" as required by claims 1-12.

112. Siemens is therefore entitled to the declaratory judgment that its EDA design tool software products, and the uses thereof, do not infringe any claims of '989 patent, directly or indirectly, literally or by equivalence.

SEVENTH CLAIM FOR RELIEF

(Declaratory Judgment that Siemens Does Not Infringe the '807 Patent Based on License)

113. Siemens repeats and re-alleges each and every allegation contained in paragraphs 1–112 of this Complaint as if fully set forth herein.

114. In view of the facts and allegations set forth above, there is an actual, justiciable, substantial, and immediate controversy within the meaning of 28 U.S.C. § 2201 between Siemens and BSLLC regarding whether Siemens has a license to practice the '807 patent.

115. Siemens is therefore entitled to the declaratory judgment that it holds a license to the '807 patent and thus, Siemens' EDA design tool software products cannot infringe.

DEMAND FOR A JURY TRIAL

In accordance with Federal Rules of Civil Procedure 38, Siemens demands a jury trial on all issues and claims so triable.

SIEMENS' PRAYER FOR RELIEF

Siemens respectfully requests this Court grant judgment and relief as follows:

(a) Declaring that Siemens does not directly or indirectly infringe any claim of the '259 patent, either literally or under the doctrine of equivalents;

(b) Declaring that Siemens does not directly or indirectly infringe any claim of the '807 patent, either literally or under the doctrine of equivalents;

(c) Declaring that Siemens does not directly or indirectly infringe any claim of the '803 patent, either literally or under the doctrine of equivalents;

(d) Declaring that Siemens does not directly or indirectly infringe any claim of the '989 patent, either literally or under the doctrine of equivalents;

(e) Declaring that Siemens does not directly or indirectly infringe any claim of the '626 patent, either literally or under the doctrine of equivalents;

(f) Declaring that Siemens does not directly or indirectly infringe any claim of the '760 patent, either literally or under the doctrine of equivalents;

(g) Declaring that Siemens holds a license to the '807 patent and therefore does not infringe any claim of the '807 patent;

(h) A temporary restraining order, preliminary injunction, and permanent injunction against BSLLC, its officers, employees, agents, subsidiaries, affiliates, assigns, successors, and any person acting for or on their behalf, in active concert or participation with them or who receives actual notice of this Court's order, ordering each of them to refrain from participation in and take all necessary actions to secure withdrawal of claims of patent infringement at the ITC in the 1340-Action and 1342-Action and before each District Court in each of the District Court Customer Suits.

(i) Order that this case is "exceptional" pursuant to 35 U.S.C. § 285 entitling Siemens an award of its reasonable and necessary attorneys' fees, expenses, and costs, and pre-judgment interest thereon;

(j) Order awarding Siemens its costs of suit incurred in this action; and

(k) Granting to Siemens such other and further relief as this Court deems just and proper.

Dated: December 2, 2022

VENABLE LLP

/s/ Daniel A. O'Brien

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